

**Amendment to the Claims:**

This listing of claims will replace all prior versions, and listings of claims in the application:

**Listing of Claims:**

1-17. (Canceled)

1                   18.     (Currently amended): A method of sharing data in a computer system,  
2     said computer system comprising a first computer, a second computer, and a storage system  
3     comprising a disk control unit, a first disk unit, a second disk unit, and a third disk unit, the  
4     method comprising:  
5                   forming a first duplex state between said first disk unit and said second disk unit,  
6     wherein said disk control unit, in response to a write request from said first computer, stores  
7     write data associated therewith to both said first disk unit and to said second disk unit, wherein  
8     said disk control unit, in response to a write request from said second computer, stores write data  
9     associated therewith to said third disk unit;  
10                  forming a simplex state and sending a first message from said first computer to  
11     said second computer indicating forming of said simplex state, wherein said disk control unit, in  
12     response to a write request from said first computer, stores write data associated therewith only  
13     to said first disk unit, wherein said disk control unit, in response to a write request from said  
14     second computer, stores write data associated therewith to said ~~second~~third disk unit;  
15                  subsequent to receiving said first message performing at said second computer a  
16     re-mapping operation between said second disk unit and said third disk unit; and  
17                  forming a second duplex state between said first disk unit and said third disk unit,  
18     wherein said disk control unit, in response to a write request from said first computer, stores  
19     write data associated therewith to both said first disk unit and to said third disk unit, wherein said  
20     disk control unit, in response to a write request from said second computer, stores write data  
21     associated therewith to said second disk unit.

1                   19.     (Previously presented): A method of sharing data according to claim 18,  
2 further comprising forming a simplex state subsequent to forming said second duplex state,  
3 wherein said disk control unit, in response to a write request from said first computer, stores  
4 write data associated therewith only to said first disk unit, wherein said disk control unit, in  
5 response to a write request from said second computer, stores write data associated therewith to  
6 said third disk unit.

1                   20.     (Previously presented): A method of sharing data in a computer system,  
2 said computer system comprising a first computer, a second computer, and a storage system  
3 comprising a disk control unit, a first disk unit, a second disk unit, a third disk unit, and a fourth  
4 disk unit, the method comprising:

5                         forming a duplex state between said first disk unit and said second disk unit,  
6 wherein said disk control unit, in response to a write request from said first computer, stores  
7 write data associated therewith to both said first disk unit and to said second disk unit, wherein  
8 said disk control unit, in response to a write request from said second computer, stores write data  
9 associated therewith to said fourth disk unit;

10                        forming a simplex state and sending a message from said first computer to said  
11 second computer indicating forming of said simplex state, wherein said disk control unit, in  
12 response to a write request from said first computer, stores write data associated therewith only  
13 to said first disk unit; and

14                        subsequent to receiving said first message, copying data stored in said second disk  
15 unit to said third disk unit and then performing at said second computer a re-mapping operation  
16 between said third disk unit and said fourth disk unit, wherein subsequent to said re-mapping  
17 said disk control unit accesses said third disk unit in response to I/O requests from said second  
18 computer; and

19                        re-forming said duplex state between said first disk unit and said second disk unit,  
20 wherein said disk control unit, in response to a subsequent write request from said first computer,  
21 stores write data associated therewith to both said first disk unit and to said second disk unit.

1                   21.   (Previously presented): A method of sharing data according to claim 20,  
2 wherein said step of copying data includes steps of:  
3                   converting a first data format of data stored in said second disk unit to a second  
4 data format; and  
5                   storing said data according to said second data format to said fourth disk unit.

1                   22.   (Previously presented): A method of sharing data according to claim 21,  
2 wherein said first data format is a count key data format and said second data format is a fixed-  
3 length block format.

1                   23.   (Previously presented): A method of sharing data according to claim 20,  
2 wherein said computer system further comprises a processor coupled to said storage system, and  
3 said step of copying data is performed by said processor.

24-26. (Canceled)

1                   27.   (Previously presented): A method of sharing data in a computer system,  
2 said computer system comprising a first computer, a second computer, a first storage system  
3 coupled to said first computer and comprising a first disk unit and a first disk control unit, and a  
4 second storage system coupled to said second computer and comprising a second disk unit, a  
5 third disk unit, a fourth disk unit, and a second disk controller unit, wherein said first disk control  
6 unit and said second disk control unit are coupled via a network, the method comprising steps of:  
7                   forming a duplex state between said first disk unit and said second disk unit,  
8 wherein said first disk control unit, in response to a write request from said first computer, stores  
9 write data associated therewith to both said first disk unit and to said second disk unit, wherein  
10 said second disk control unit, in response to a write request from said second computer, stores  
11 write data associated therewith to said fourth disk unit;  
12                   terminating execution of applications in said first computer;

subsequent to said terminating, forming a simplex state, wherein said first disk control unit, in response to a write request from said first computer, stores write data associated therewith only to said first disk unit;

subsequent to said step of forming a simplex state, sending a message from said first computer to said second computer indicating said simplex state, wherein said second computer performs copying data stored in said second disk unit to said third disk unit and subsequent to said copying, performs a re-mapping between said third disk unit and said fourth disk unit so that said second disk control unit now accesses said third disk unit, in response to I/O requests from said second computer; and

re-forming said duplex state between said first disk unit and said second disk unit, wherein said disk control unit, in response to a subsequent write request from said first computer, stores write data associated therewith to both said first disk unit and to said second disk unit.

28. (Previously presented): A method of sharing data according to claim 27, wherein said step of copying data includes steps of:

converting a data format of data stored in said second disk unit to another data format; and  
storing data according to said other data format to said third disk unit.

29. (Previously presented): A storage system comprising:

a disk control unit; and  
a plurality of disk units,

wherein said disk control unit is operable to form a duplex state between a first disk unit and a second disk unit, wherein data associated with a write request from a first computer is stored to both said first disk unit and to said second disk unit, wherein a third disk unit is accessed to service an I/O request from a second computer,

wherein said disk control unit is further operable to form a simplex state between said first disk unit and said second disk unit, wherein data associated with a write request from said first computer is stored only to said first disk unit,

11                wherein during said simplex state, an application executing on said first computer  
12        sends a message to said second computer indicating forming of said simplex state, wherein data  
13        stored in said second disk unit is copied to a third disk unit,  
14                wherein subsequent to data being copied from said second disk unit to said third  
15        disk unit, a re-mapping of said second disk unit and said third disk unit is performed so that said  
16        second disk unit is accessed to service subsequent I/O requests from said second computer,  
17                wherein another duplex state is formed between said first disk unit and said third  
18        disk unit so that data associated with subsequent write requests from said first computer are  
19        stored to both said first disk unit and to said third disk unit.

30.        (Canceled)

1                31.        (Previously presented): A storage system comprising:  
2                a disk control unit; and  
3                a plurality of disk units,  
4                wherein said disk control unit is operable to form a duplex state between a first  
5        disk unit and a second disk unit, wherein data associated with a write request from a first  
6        computer is stored to both said first disk unit and to said second disk unit, wherein data  
7        associated with a write request from a second computer is stored to a fourth disk unit,  
8                wherein said disk control unit is further operable to form a simplex state, wherein  
9        an application executing on said first computer sends a message to said second computer  
10        indicating forming of said simplex state, wherein data associated with a write request from said  
11        first computer is stored only to said first disk unit,  
12                wherein during said simplex state, data stored in said second disk unit is copied to  
13        said third disk unit and subsequent to said copying, data associated with a write request from said  
14        second computer is stored to said third disk unit as a result of a re-mapping performed between  
15        said third disk unit and said fourth disk unit,  
16                wherein said duplex state is re-formed between said first disk unit and said second  
17        disk unit.

1                   32.   (Previously presented): The storage system of claim 31, wherein data  
2 stored on said second disk unit is of a first data format and data stored on said third disk unit is of  
3 a second data format.

1                   33.   (Previously presented): The storage system of claim 32, wherein said first  
2 data format is a count key data format and said second data format is a fixed-length block format.

34.   (Canceled)

1                   35.   (Previously presented): A storage system comprising:  
2 a disk control unit;  
3 a plurality of disk units; and  
4 a network connecting at least some of said disk units,  
5 said disk control unit being operable to copy data stored in a first disk unit to a  
6 second disk unit via said network,  
7 said disk control unit being operable to form a duplex state between said first disk  
8 unit and said second disk unit, wherein data associated with a write request from a first computer  
9 is stored to both said first disk unit and to said second disk unit, wherein data associated with a  
10 write request from a second computer is stored to a third disk unit,  
11 said disk control unit further being operable to form a simplex state, wherein an  
12 application executing on said first computer sends a message to said second computer indicating  
13 forming of said simplex state, wherein data associated with a write request from said first  
14 computer is stored only to said first disk unit,  
15 wherein during said simplex state, data stored in said second disk unit is copied to  
16 a third disk unit and, subsequent to said copying, said second computer accesses said second disk  
17 unit as a result of a re-mapping performed between said second disk unit and said third disk unit,  
18 wherein another duplex state is formed between said first disk unit and said third  
19 disk unit so that data in subsequent write requests from said first computer are stored in both said  
20 first disk unit and said third disk unit.

1                   36.   (Previously presented): The storage system of claim 27, wherein data  
2 stored on said second disk unit is of a first data format and data stored on said third disk unit is of  
3 a second data format.

37 and 38.   (Canceled)